REMARKS

Prior to the present Response, claims 1-23 were pending in the Application. In this Response, no claims are being cancelled or added. Claim 23 is presently amended. Accordingly, claims 1-23 remain pending.

In the Office Action, the Examiner objected to the specification for failing to include a summary of the invention. Additionally, the Examiner rejected claims 1-23. The Examiner rejected claim 23 under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. The Examiner rejected claims 1-9, 14-17 and 20-23 under 35 U.S.C. § 103(a) as being unpatentable over Tittle (U.S. Pat. No. 6,603,477) ("Tittle") in view of Meier (U.S. Pat. No. 6,211,887). Further, the Examiner rejected claims 10 and 18 under 35 U.S.C. § 103(a) as being unpatentable over Tittle in view of Meier as applied to claims 1-9, 14-17 and 20-23 above. Also, the Examiner rejected claims 11, 12 and 19 under 35 U.S.C. § 103(a) as being unpatentable over Tittle in view of Meier as applied to claims 1-9, 14-17 and 20-23 above, and further in view of Bertram (U.S. Pat. No. 6,144,379) ("Bertram"). Finally, the Examiner rejected claim 13 under 35 U.S.C. § 103(a) as being unpatentable over Tittle in view of Meier as applied to claims 1-9, 14-17 and 20-23 above, and further in view of Dehner, Jr. (U.S. Pat. No. 6,429,868) ("Dehner"). The objection and each of the rejections is addressed in detail below.

Objection to the Specification

The Examiner objected to the specification, stating that "[t]he specification of the application is missing a summary of the invention." The Applicant is not aware of any law or regulation that requires a patent application to contain a Summary of the Invention section. The most relevant regulation is 37 C.F.R. § 1.73, which states:

> A brief summary of the invention indicating its
> nature and substance, which may include a statement of
> the object of the invention, *should* precede the detailed
> description. Such summary should, *when set forth,* be
> commensurate with the invention as claimed and any
> object recited should be that of the invention as claimed.

37 C.F.R. § 1.73 (emphasis added).

The failure of the regulation to require a Summary of Invention section is apparent

from its plain language. The fact that guidance is given for *when* a Summary of the Invention

section is set forth clearly indicates that a Summary of the Invention Section is optional, not a

requirement. Accordingly, the Applicant respectfully requests withdrawal of the objection to

the Specification based on the Applicant's failure to include a Summary of the Invention

section.

Rejections Under 35 U.S.C. §101

The Examiner rejected claim 23 under 35 U.S.C. § 101 because the claimed invention

is directed to non-statutory subject matter. Specifically, the Examiner stated:

> The claimed invention is directed to non-statutory
> subject matter. Claim 23 recites a computer program. It is
> suggested that the preamble be amended to recite --A computer
> program stored on a computer readable medium and executed
> by the computer for providing a graphical representation to be
> displayed, comprising:--

Office Action, page 2.

The Applicant does not concede the correctness of the Examiner's rejection under 35

U.S.C. § 101. However, in the interest of furthering prosecution, the Applicant presently

amends claim 23, as set forth above. The Applicant notes that the present amendment does

not change the scope of claim 23. Further, no new matter is presently added.

Rejections Under 35 U.S.C. § 103

The Examiner rejected claims 1-9, 14-17 and 20-23 under 35 U.S.C. § 103(a) as being unpatentable over Tittle (U.S. Pat. No. 6,603,477) ("Tittle") in view of Meier (U.S. Pat. No. 6,211,887). Further, the Examiner rejected claims 10 and 18 under 35 U.S.C. § 103(a) as being unpatentable over Tittle in view of Meier as applied to claims 1-9, 14-17 and 20-23 above. Also, the Examiner rejected claims 11, 12 and 19 under 35 U.S.C. § 103(a) as being unpatentable over Tittle in view of Meier as applied to claims 1-9, 14-17 and 20-23 above, and further in view of Bertram (U.S. Pat. No. 6,144,379) ("Bertram"). Finally, the Examiner rejected claim 13 under 35 U.S.C. § 103(a) as being unpatentable over Tittle in view of Meier as applied to claims 1-9, 14-17 and 20-23 above, and further in view of Dehner, Jr. (U.S. Pat. No. 6,429,868) ("Dehner"). Specifically, with regard to the independent claims the Examiner stated:

> Note with respect to claim 1, 14, 20 and 23, Tittle teaches that the process control device acts as a means to "abstract/determine plurality of parameters" that relates to a "dynamic" (see column 4, line 14-22). FIG. 2 shows the parameters being "defined" as Time, and unit axes X and Y.
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> Office Action, page 3.

On a preliminary note, the Applicant stresses that the Examiner's rejections are vague regarding the various claim features and, thus, the Applicant reminds the Examiner that:

> When a reference is complex or shows or describes inventions other than that claimed by the applicant, *the particular part relied on must be designated as nearly as practicable.* The pertinence of each reference, if not apparent, must be clearly explained and *each rejected claim specified.*
>
> 37 C.F.R. § 1.104(c)2 (emphasis added); see also M.P.E.P. § 707.07.

In the Office Action, it appears that the Examiner has merely summarized portions of the cited reference without specifically correlating the reference to elements of the present claims. The Examiner did not even address certain recited features in the independent claims. Indeed, with respect to the independent claims, the Examiner only suggests that a few claim terms (e.g., "determine plurality of parameters," "dynamic," and "defined") correspond to features of the cited reference. Further, while the Examiner rejected all of the independent claims under 35 U.S.C. § 103 as being obvious over Tittle in view of Meier, the Examiner merely discusses Tittle with respect to the independent claims and does not mention any correlation to Meier.

The Applicant believes that this is inadequate to fulfill the Examiner's obligations under 37 C.F.R. § 1.104(c)(2). As such, the Applicant believes the rejection provided by the Examiner to be deficient on its face. Accordingly, the Applicant requests that a clear explanation of the features of the reference relied on, correlated to the particular features of the claim(s) rejected be provided. Further, if the Examiner maintains the rejection in the next office action, the Applicant requests that the next office action be made non-final in view of the deficiency of the present rejection.

The burden of establishing a *prima facie* case of obviousness falls on the Examiner. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (PTO Bd. App. 1979). To establish a *prima facie* case, the Examiner must not only show that the combination includes *all* of the claimed elements, but also a convincing line of reason as to why one of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 U.S.P.Q. 972 (Bd. Pat. App. & Inter. 1985).

Embodiments of the present invention are directed to a system and method for simplifying the visualization of large dynamics or interactive systems (e.g., complex business operations). *See* Application, page 4. Unlike traditional graphs (e.g., bar charts, line charts, and flow charts), which often overwhelm users with graphic features or require navigation through numerous separate plots, embodiments of the present invention are visually efficient. *See* Application, pages 2-4. Particularly, embodiments of the present invention may allow complex business operations and correlations to be simplified and observed by abstracting parameters, transforming the parameters to nodes, transforming operations and correlations to lines, and transforming measurements to colors. *See* Application, page 4-5. The various nodes, lines, and colors may be used to represent operations and relationships within the represented dynamic. *See* Appliaction, page 4. For example, in one embodiment, the present invention simplifies complex business operations by abstracting important business parameters and deriving multiple three-parameter circular graphs to represent a single business case. *See* Appliaction, page 4.

Accordingly, turning to the claims, claim 1 recites, *inter alia*, "determining a plurality of parameters from a parameter set that relates to a dynamic; dividing the plurality of parameters into data groups; defining a plurality of partitions for a graphical representation; mapping the data groups to corresponding nodes on the plurality of partitions; and connecting the nodes graphically with indicia that indicates an association between data groups."

Claim 14 recites, *inter alia*, "a parameter abstracting module that abstracts a plurality of parameters from a parameter set that relates to a dynamic; a parameter group dividing module that divides the plurality of parameters into data groups; a partition defining module that defines a plurality of partitions for a graphical representation; a mapping module that maps the data groups to corresponding nodes on the plurality of partitions; and a graphical

connection module that connects the nodes graphically with indicia that indicates an association between the data groups."

Claim 20 recites, *inter alia*, "means for abstracting a plurality of parameters from a parameter set that relates to a dynamic; means for dividing the plurality of parameters into data groups; means for defining a plurality of partitions for a graphical representation; means for mapping the data groups to corresponding nodes on the plurality of partitions; and means for connecting the nodes graphically with indicia that indicates an association between data groups."

Claim 23, as amended, recites, *inter alia*, "[a] computer program stored on a computer readable tangible medium and executable by a computer, the computer program comprising: a parameter abstracting module stored on the tangible medium, the parameter abstracting module being adapted to abstract a plurality of parameters from a parameter set that relates to a dynamic; a parameter group dividing module stored on the tangible medium, the parameter abstracting module being adapted to divide the plurality of parameters into data groups; a partition defining module stored on the tangible medium, the parameter abstracting module being adapted to define a plurality of partitions for a graphical representation; a mapping module stored on the tangible medium, the mapping module being adapted to map the data groups to corresponding nodes on a plurality of partitions; and a graphical connection module stored on the tangible medium, the graphical connection module being adapted to connect the nodes graphically with indicia that indicates an association between the data groups."

The Applicant respectfully asserts that the Tittle and Meier references, whether considered separately or in a theoretical combination, do not include all of the features recited in independent claims 1, 14, 20, and 23. Specifically, for example, the Applicant asserts that

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the Tittle and Meier references fail to teach "defining a plurality of partitions for a graphical representation; mapping the data groups to corresponding nodes on the plurality of partitions; and connecting the nodes graphically with indicia that indicates an association between data groups," as recited in independent claim 1.

As set forth above, the Examiner's discussion with respect to claims 1, 14, 20, and 23 merely included reference to Tittle. The Examiner did not discuss Meier with respect to the independent claims. Indeed, the Examiner did not even suggest that any features in Meier correspond to features recited in the present independent claims. Further, the Examiner certainly did not provide any suggestion or motivation for combining Tittle and Meier. Accordingly, the Applicant's remarks are primarily directed to the disclosure of Tittle. However, the Applicant respectfully asserts that the Meier reference does not remedy the deficiencies of Tittle, which will be discussed below.

The Tittle reference is directed to "a method capable of displaying outputs of a plurality of process sensors on two or more graphs of a visual display." Tittle, col. 1, lines 42-44. In the Examiner's rejection of the present independent claims, the Examiner cited a discussion in Tittle relating to a display, which a process control device causes to display two standard line graphs, as is illustrated in FIG. 1 of Tittle. Specifically, the Examiner cited FIG. 2 and column 4, lines 14-22 of Tittle as teaching the recited features of independent claims 1, 14, 20, and 23. To clearly illustrate the deficiencies of Tittle with respect to the independent claims, the cited text of Tittle is reproduced below in its entirety:

> With references to FIG. 1, a process control device 2, such as a programmable logic controller or a computer, is connected to receive signals from sensors S1-S8 which are configured to measure process parameters, such as temperature, pressure, pH, conductivity, etc., of a manufacturing process. Process control device 2 is connected to one or more control means (not shown) for controlling the manufacturing process in

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a manner known in the art as a function of the signals output by sensors S1-S8.

Again, embodiments of the present invention are directed to a system and method for simplifying the visualization of large dynamics or interactive systems that avoid issues associated with standard graphs (e.g., bar graphs, line charts, and flow charts). In contrast, Tittle is merely directed to a process control device with a display that operates to produce two or more *standard* graphs (e.g., line graphs), such as those illustrated in FIG. 1 of Tittle. The standard graphs described and illustrated by Tittle do not include all of the features recited in the present independent claims, as set forth above. Tittle as a whole does not include the recited features. Indeed, as indicated above, the Examiner has not even correlated the presently recited features with the disclosure of Tittle. Further, the Applicant respectfully asserts that Meier fails to remedy these deficiencies in Tittle with respect to the independent claims. Indeed, in the Office Action, the Examiner did not even allege that Meier remedies any deficiencies of Tittle with respect to the independent claims.

Accordingly, the Applicant reiterates that Tittle and Meier, whether considered separately or in a theoretical combination, do not teach or suggest all of the features recited in independent claims 1, 14, 20, and 23. For example, the cited references fail to teach or suggest "defining a plurality of partitions for a graphical representation; mapping the data groups to corresponding nodes on the plurality of partitions; and connecting the nodes graphically with indicia that indicates an association between data groups," as recited in independent claim 1. Further, the Applicant asserts that the Examiner did not even suggest that any specific features taught by Tittle and/or Meier correspond to all of the recited features of the independent claims.
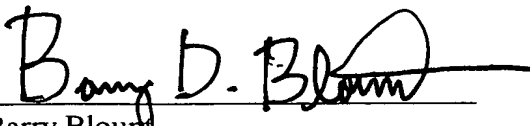
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For these reasons, the Applicant respectfully requests withdrawal of the rejections under 35 U.S.C. § 103. Specifically, the Applicant requests that the Examiner withdraw the rejection of independent claims 1, 14, 20, and 23 and the claims depending therefrom. Further, the Applicant requests that the Examiner provide an indication of allowance for independent claims 1, 14, 20, and 23 and the claims depending therefrom.

Conclusion

In view of the remarks set forth above, Applicant respectfully requests allowance of claims 1-23. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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